



I. AMENDMENTS

AMENDMENTS TO THE CLAIMS

Please enter new claims 17-24.

1. (Previously presented) A peptide consisting of about ten to about 50 amino acids, wherein the peptide comprises an amino acid sequence comprising an integrin binding motif, wherein the peptide is further characterized by a biological activity which enhances bone growth, and wherein the amino acids may be in the D- or L- conformation.
2. (Previously presented) The peptide of claim 1, wherein the integrin binding motif is an RGD sequence.
3. (Original) The peptide of claim 1, wherein the amino acid sequence is contiguous with the RGD sequence in naturally occurring protein matrix extracellular phosphoglycoprotein.
4. (Previously presented) The peptide of claim 1, wherein the peptide has a length of from about 15 to about 35 amino acids.
5. (Original) The peptide of claim 1, wherein the amino acids are in the L-conformation.
6. (Withdrawn) The peptide compound of claim 1, wherein the peptide is selected from the group consisting of:

AQKSPVSKSKSTHRIQHNIDYLKHLSVKKKIPSDFEGSGYTDLQERGD

RGDAQKSPVSKSKSTHRIQHNIDYLKHLSVKKKIPSDFEGSGYTDLQE

DSQAQKSPVSKSKSTHRIQHNIDYLKHLSVKKKIPSDFEGSGYTDRGD

RGDSPVSKSKSTHRIQHNIDYLKHLSVKKKIPSDFEGSGYTDLQE

DSQAQKSPVSKSKSTHRIQHNIDYLKHLSVKKKIPSDFEGSGRGD

RGDTHRIQHNIDYLKHLSVKKKIPSDFEGSGYTDLQE

DSQAQKSPVSKSKSTHRIQHNIDYLKHLSVKKKIPSDFERGD

RGDLKHLVKVKIIPSDFEGSGYTDLQE
DSQAQKSPVSKSKSTHRIQHNIDYLKHLVKVKIIPSRGD
RGDLSKVKIIPSDFEGSGYTDLQE
DSQAQKSPVSKSKSTHRIQHNIDYLKHLSKRGD
RGDVKKIIPSDFEGSGYTDLQE
DSQAQKSPVSKSKSTHRIQHNIDYLKRGD
RGDIPSDFEGSGYTDLQE
DSQAQKSPVSKSKSTHRIQHNIDRGD
RGDDFEGSGYTDLQE
DSQAQKSPVSKSKSTHRRGD
RGDGSGYTDLQE
DSQAQKSPVKRGD
RGDGYTDLQE
DSQAQKSRGD
RGDNDISPFSGDGQPFKDIPGKGEATGPDLEGKDIQTGFA

NDI RGDSPFSGDGQPFKDIPGKGEATGPDLEGKDIQTGFA
NDISPF RGDSGDGQPFKDIPGKGEATGPDLEGKDI
NDISPFSGD RGDGQPFKDIPGKGEATGPDL
FSGDGQPFKDIPGKGEATGPDLEGKDIQTGFAGPSEAES RGDTHL
IPGKGEATGPDLEGKDIQTGFAGPSE RGDAESTHL
EATGPDLEGKDIQTGFAG RGDPSEAESTHL
NDISPFSGDGQPFKD RGDIIPGKGEATGPDLEGK
GKGEATGPDLEGKDI RGDQTGFAGPSEAESTHL
FSGDGQPFKDIPGKGEATG RGDPDLEGKDIQTGFAGPSEA
DGQPFKDIPGKGEATG RGDPDLEGKDIQTGF
PFKDIPGKGEATG RGDPDLEGKDIQ
DIPGKGEATG RGDPDLEGKDIQTGFAGP
DGQPFKDIPGKGEATG RGDPDLEGKDIQTGF
GKGEATG RGDPDLEGKDIQTGFAGPSEA

EATG RGDPDLEGKDIQTGF

EATG RGDPDLEGK

EATG RGDPDL.

7. (Previously presented) The peptide of claim 1, comprising the sequence **TDLQERGDNDISPFSGDGQPFKD (SEQ ID NO:47)**.

8. (Previously presented) A peptide characterized by:

(a) consisting of from ten to fifty amino acids;

(b) an RGD sequence;

(c) an amino acid sequence that is contiguous with an RGD sequence of naturally occurring matrix extracellular phosphoglycoprotein; and

(d) biological activity in promoting bone growth.

9. (Previously presented) The peptide of claim 8, wherein the peptide is selected from the group consisting of

DFEGSGYTDLQERGD (SEQ ID NO:43)

YTDLQERGDNDISPF (SEQ ID NO:44)

ERGDNDISPFSGDGQ (SEQ ID NO:45)

TDLQERGDNDISPFSGDGQPFKD (SEQ ID NO:47).

11. (Withdrawn) An antibody which binds specifically to a peptide of claim 9.

12. (Withdrawn) A formulation comprising:

a carrier; and

a therapeutically effective amount of a peptide of claim 8.

12. (Original) A formulation comprising:

a carrier; and

a therapeutically effective amount of a peptide of claim 8.

13. (Original) The formulation of claim 12, wherein the carrier is a saline solution and the formulation is injectable.

14. (Original) The formulation of claim 12, wherein the carrier is a paste and the formulation is a toothpaste.

15. (Original) The formulation of claim 12, wherein the carrier is an aqueous flavored solution and the formulation is a mouthwash.

16. (Previously presented) A pharmaceutical formulation, comprising:

a pharmaceutically acceptable carrier; and

a therapeutically effective amount of a peptide consisting of from ten to fifty amino acids which amino acids correspond to an amino acid sequence of naturally occurring protein matrix extracellular phosphoglycoprotein and comprising the RGD sequence of phosphoglycoprotein, the peptide further characterized by enhancing bone growth in a mammal.

17. (New) A linear peptide consisting of about 15 to about 35 amino acids, wherein the peptide comprises an amino acid sequence comprising an integrin binding motif, wherein the peptide is further characterized by a biological activity which enhances bone growth, and wherein the amino acids is in the D- or L- conformation.

18. (New) The peptide of claim 17, wherein the integrin binding motif is an RGD sequence.

19. (New) The peptide of claim 17, comprising the sequence
TDLQERGDNDISPFSGDGQPKD (SEQ ID NO:47).

20. (New) The peptide of claim 17, wherein the peptide is selected from the group consisting of

DFEGSGYTDLQERGD (SEQ ID NO:43)
YTDLQERGDNDISPF (SEQ ID NO:44)
ERGDNDISPFSGDGQ (SEQ ID NO:45)
TDLQERGDNDISPFSGDGQPKD (SEQ ID NO:47).

21. (New) A formulation comprising:

a carrier; and

a therapeutically effective amount of a peptide of claim 17.

22. (New) The formulation of claim 21, wherein the carrier is a saline solution and the formulation is injectable.

23. (New) The formulation of claim 21, wherein the carrier is a paste and the formulation is a toothpaste.

24. (New) The formulation of claim 21, wherein the carrier is an aqueous flavored solution and the formulation is a mouthwash.